

Noonday globe snail

Petera clarkia Nantahala



Noonday globe snail, John Firdell

Status: Threatened

Description: The noonday globe snail is a moderately sized (3/4 inch wide and 1/2 inch high) land snail. Its shell is shiny and reddish in color. Their surface of the shell is sculptured with rather course lines. The area around the shell opening (aperture) is white, and a long curved “tooth” is located on the inside portion of the aperture. The animal’s body is black.

Because this snail is so rare and restricted in distribution, very little is known of its biology. The species’ reproductive behavior is unknown, and its food habits are also a mystery. However, other related species in the genus *Petera* feed on the subsurface hair-like structure (mycelia) of fungi. The species appears to be most active during wet weather; when it’s frequently found out on the surface of vegetation rather than under the leaf litter on the forest floor.

Habitat: The snail is found in the Nantahala Gorge, on wet cliffs that are intersected by many small streams and waterfalls. The forest is mature, with many large trees and a diverse plant community. The forest floor has a thick, rich humus layer, and the area has many exposed calcareous (rich in calcium) rocks. Calcium, which is generally scarce in other cliffs in the area, is vital to snails because it is a major component of their shells.

Range: The noonday globe snail is known from only about two miles of high cliffs within the Nantahala Gorge in Western North Carolina.

Listing: Threatened, July 3, 1978. 43 FR 28932 28935

Critical habitat: None designated

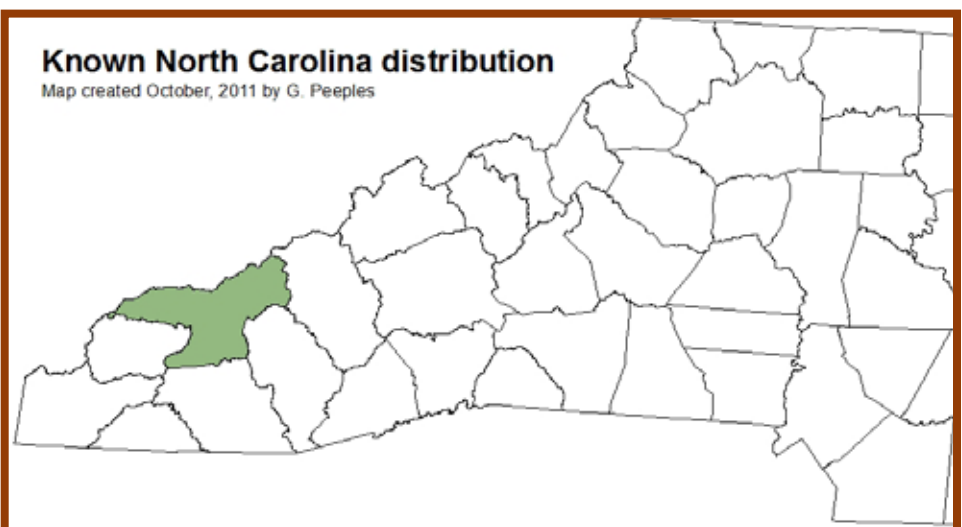
Threats: The noonday globe was likely never widely distributed. Steep wet slopes with calcareous rocks are rare in Western North Carolina. However the species was likely somewhat more widely distributed within the gorge before the gorge was altered for a railroad and highway. The associated loss of the forest canopy allowed more sunlight to penetrate the gorge and likely dried the lower slope of the gorge. This habitat alteration also allowed such non-native plants as kudzu and Japanese honeysuckle to invade some roadside areas, changing the area’s natural plant and animal community.

Why should we be concerned about the loss of species? Extinction is a natural process that has been occurring since long before the appearance of humans. Normally, new species develop through a process known as speciation,

at about the same rate other species become extinct. However, because of air and water pollution, forest clearing, loss of wetlands, and other man-induced environmental changes, extinctions are now occurring at a rate that far exceeds the speciation rate.

All living things are part of a complex and interconnected network. We depend on the diversity of plant and animal life for our recreation, nourishment, many of our lifesaving medicines, and the ecological functions they provide. One-quarter of all the prescriptions written in the United States today contain chemicals that were originally discovered in plants and animals. Industry and agriculture are increasingly making use of wild plants, seeking out the remaining wild strain of many common crops, such as wheat and corn, to produce new hybrids that are more resistant to disease, pests, and marginal climatic conditions. Our food crops depend on insects and other animals for pollination.

Healthy forests clean the air and provide oxygen for us to breathe. Wetlands clean water and help minimize the impacts of floods. These services are the foundation of life and depend on a diversity of plants and animals working in concert. Each time



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a species disappears, we lose not only those benefits we know it provided but other benefits that we have yet to realize.

What you can do to help

Tread lightly and stay on designated trails.

Visit arboretums, botanical gardens, and parks and learn all you can about endangered species and the causes of their declines.

Participate in the protection of our remaining wild lands and the restoration of damaged ecosystems.

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